UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

September 16, 2008

Mr. Larry W. Camper, Director,
Division of Waste Management
And Environmental Protection
Office of Federal and State Materials
And Environmental Management Programs
U.S Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Camper:

I am writing in response to your letter of June 16, 2008, regarding the ABB Incorporated site in Windsor, Connecticut. The June 16 letter notified EPA that the ABB Services site would have triggered an NRC consultation with EPA in accordance with the 2002 Memorandum of Understanding (MOU) entitled: "Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites" (OSWER No. 9295.8-06, signed by EPA on September 6, 2002, and NRC on October 9, 2002). This letter responds to the notification in accordance with Section V.D.1 of the MOU. When NRC requests EPA's consultation on a decommissioning plan or a license termination plan, EPA is obligated to provide written notification of its views within 90 days of NRC's notice.

The June 16 letter constitutes a Level 1 consultation as specified in the MOU because the consultation involves proposed derived concentration guidelines levels (DCGLs) for certain radionuclides in the decommissioning plan (DP) which exceed soil concentration values in Table 1 of the MOU for residential use.

The views expressed by EPA in this letter regarding NRC's decommissioning are limited to discussions related to the MOU. The comments provided here do not constitute guidance related to the cleanup of sites under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authority.[1] EPA's views on the matters

[1] Please see the memorandum entitled: "Distribution of Memorandum of Understanding between EPA and the Nuclear Regulatory Commission" (OSWER No. 9295.8-06a, October 9, 2002) which includes guidance to the EPA Regions to facilitate Regional compliance with the MOU and to clarify that the MOU does not affect CERCLA actions that do not involve NRC (e.g., the MOU does not establish cleanup levels for CERCLA sites). This memorandum may be found on the Internet at: http://www.epa.gov/superfund/health/contaminants/radiation/pdfs/transmou2fin.pdf.

addressed by this letter were developed from information furnished by NRC in the June 16 letter, other materials provided by NRC, and staff discussions.

EPA Consultation Views

Today's response is limited to those matters that initiated NRC's request for consultation in its letter of June 16. NRC initiated this consultation because the derived concentration guideline levels (DCGLs) in the decommissioning plan exceeded the MOU trigger values for five radionuclides in soil. It is EPA's understanding that DCGLs are generally developed for all radionuclides that a licensee was permitted by NRC to use. It is also our understanding that many of these radionuclides may not be present in the media (soil) discussed in this letter, and that the remediation activities associated with NRC's decommissioning process are likely to significantly decrease the residual levels of those radionuclides that are present below the DCGLs.

Soil: Land Use

NRC triggered the consultation for soil on the basis of DCGLs for cobalt-60, total uranium, uranium-234, uranium-235, and uranium-238 exceeding the residential Table 1 values in the MOU. It is EPA's understanding that the future land use for portions of this site with significant soil contamination is likely to continue to be industrial use after NRC decommissions.[2] Table 1 contains trigger values for both residential and industrial/commercial land use. At CERCLA sites and at some RCRA sites, EPA generally uses the guidance "Land Use in the CERCLA Remedy Selection Process" (OSWER Directive No. 9355.7-04, May 25, 1995) to determine what is a reasonably anticipated land use. This guidance document may be found on the Internet at: http://www.epa.gov/superfund/community/relocation/landuse.pdf.

As your letter states, NRC is planning to release the site for unrestricted use. In EPA's view, NRC should consider determining if the reasonably anticipated land use for the site is industrial/commercial. If the future use of the site is reasonably anticipated to be industrial, rather than residential, it is more likely that the site will not exceed Table 1 trigger values in accordance with that land use. Ensuring continuance of a restricted land use, such as industrial, however, is likely to involve the use of institutional controls. For further information regarding how EPA selects institutional controls, see "Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups" (OSWER Directive 9355.0-74FS-P, September 2000). This guidance document may be found on the Internet at: http://www.epa.gov/correctiveaction/resource/guidance/ics/icfactfinal.pdf.

[2] Please note that in accordance with section 121(c) of CERCLA EPA, when remediating a site for an industrial/commercial land use, is also likely to review the site for continued protectiveness at least every five years.

Soil: Modeling

With the exception of total uranium, the other four Table 1 soil values in the MOU that NRC's DCGLs may exceed at this site are based on a 1×10^{-4} cancer risk developed using an electronic calculator entitled: "Radionuclide Preliminary Remediation Goals (PRGs) for Superfund." This calculator generates PRG concentrations at the 1×10^{-6} risk level. The PRG value at 1×10^{-6} was multiplied by 100 to derive the 1×10^{-4} value for Table 1 consultation triggers. (At CERCLA sites, PRGs based on cancer risk should continue to be developed at the 1×10^{-6} level.) The total uranium Table 1 soil value in the MOU that NRC's DCGLs may exceed at this site is based on a noncarcinogenic hazard index (HI) quotient of 1, developed using an electronic calculator entitled: "Soil Screening Guidance for Chemicals." The soil concentration values were developed using conservative default parameters. At most sites, higher soil concentrations corresponding to a given risk level may generally be justified using site-specific parameters. The radionuclide PRG calculation tool may be found on the Internet at: http://epa-prgs.ornl.gov/radionuclides/. The Soil Screening Guidance for Chemicals calculation tool may be found on the Internet at: http://risk.lsd.ornl.gov/calc_start.shtml.

In EPA's view, if the licensee is unable to meet the Table 1 soil values, NRC should consider the use of a more restricted land use and appropriate institutional controls. In addition, NRC should consider determining if the use of site-specific parameters was justified in modeling at this site. The use of site-specific parameters would not alter NRC's obligation to possibly trigger a Level 2 consultation, if Table 1 soil values were measured to be exceeded after the Final Status Survey. If a Level 2 consultation is needed, NRC should furnish such site-specific parameters and their rationale for allowing their use during the dose assessment for the site, in order to facilitate EPA offering its views with a more accurate estimate of the risks posed by residual contamination at the site.

Conclusion

EPA staff are available to NRC for consultation if needed at the Site. If you have any questions regarding this letter, please contact me or have your staff contact Stuart Walker of my staff at (703) 603-8748.

Sincerely,

/S/ es

Elizabeth Southerland, Director
Assessment and Remediation Division
Office of Superfund Remediation and
Technology Innovation